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ABSTRACT

Implementation processes and outcomes at a junior high school of the Mastery in Learning Project, an NEA-sponsored national school transformation effort, are described in this paper. Based on the principle that a school's decisions should be made by its faculty, the project seeks to develop teachers' ability to creatively and cooperatively use skills and knowledge for problem solving. The four-stage process involves developing a school profile, taking a faculty inventory, developing committee teamwork, and developing staff involvement in comprehensive decision making. The project also participated in the School Renewal Network, a computer information system. Features of the program include utilization of a knowledge base, collegiality, reflection, and open expression of conflicting beliefs. (9 references) (LMI)

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CAN NETWORKING ENCOURAGE THE SHARING OF PRACTICAL WISDOM?

A VIEW FROM WELLS JUNIOR HIGH

Susan A. Walters

Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL, April, 1991.

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"Following a full day meeting ....I realized that I had volunteered to write some thoughts about who we are and what we are trying to do. In a broad sense, our vision is very powerful: to improve our school to become a better place for students to learn and teachers to teach. Broad generalizations sound good on paper, but what does it all mean? We got together first to talk about our own very personal viewpoints of what we saw ourselves doing as teachers, how we were working with students, things we liked, things we didn't like, certainties and uncertainties. This sharing was crucial to creating a common language, some common ground for all of us to firmly plant our feet."

This statement was written by a teacher at Wells Junior High after the first meeting of a group of teachers working on the development of a pilot project to explore ways of working with heterogeneous groups of children. It illustrates the changes at the school as a result of participation in a national restructuring project, changes which may be described as revolutionary because they challenge many of the traditional norms of schools. These teachers found it necessary to develop a common language for discussing their work as they began to talk together about teaching and learning. The statement continued:

"It was also essential to the development of a group cohesiveness, a sense of mission, and a commitment to do something. Whether we call ourselves a grouping pilot or cooperative learning, it didn't matter; we were committing ourselves to asking reflective questions like: What am I doing? Why am I doing it? What are the alternatives to my current practice? and the key question: Who among my peer group can I ask for help? This last realization was very significant. We had discovered that we were professionals, in the truest sense of the term, dedicated to the betterment of our practice through the collaborative efforts of the diversely talented members of our peer group."

The Mastery In Learning Project, an NEA-sponsored national school transformation effort, enabled Wells teachers to make research-based decisions about teaching and learning. Through the development of a whole-staff decisionmaking process, we discovered an **audience** and developed a **common language** for talking about experiences and beliefs. This process resulted in teachers **reflecting** together on instruction, change, the nature and purpose of schooling, and themselves. Gradually, a staff characterized by traditional norms of isolation became a learning community, a self-renewing center of inquiry.

This paper describes the transformation of Wells Junior High into a learning community. It then explores the relationship of participation in the School Renewal Network to changes in the school. The purpose of this computer network was to provide a forum for dialogue between teachers and researchers across the country. In order to understand the relationship of the School Renewal Network to the culture of the school, it is necessary to examine some of the factors which contributed to the changes at WJHS. These changes were well underway before the school was connected to the network. Thus, the paper begins with a description of the school at the beginning of participation in MILP and discusses some key events in the first two years. New norms established in the school are described. It then discusses utilization of the School Renewal Network by Wells teachers. The school was originally selected for this symposium because WJHS teachers have not used the network extensively, although Wells seemed to be a school in which research was being used to inform practice. Interestingly, contributions to the network increased greatly in the fall of 1990. The paper concludes with a discussion of factors which promote and inhibit use of a computer network in a restructuring school.

METHODS AND DATA SOURCES

Written records of the Mastery In Learning Project at Wells Junior High provided the primary data for this case study. These records include the original School Profile and surveys conducted as part of the faculty inventory at the beginning of the MIL project. Networks containing minutes of the Steering Committee and subcommittees provided a history of the project. Reflections written by various participants provided insights into the development of the staff as a learning community.

An unpublished paper by the Project Consultant, describing her role as a change facilitator in the school, provided rich descriptions of events during the second year of the project as well as insights into key events.

The history of the School Renewal Network at Wells Junior High

was also based on the project records. A survey conducted by the network coordinator in January 1991 provided information about teacher attitudes towards the network. This was supplemented by interviews with an individual teacher and the network coordinator.

The written records were read by the author, a member of the Wells Junior High staff and chair of the Steering Committee from the project's inception in 1986 until January, 1991. A timeline was developed, and written reflections were analyzed for recurring themes.

Drafts of this paper were read for accuracy of information and perceptions by several staff members at Wells Junior High, including the project consultant. Two members of the MILP staff in Washington who worked closely with Wells Junior High also read and commented on this case study.

RESTRUCTURING: BECOMING A LEARNING COMMUNITY

The Mastery In Learning Project

The Mastery In Learning Project is a school-based educational reform initiative sponsored by the National Education Association. Mastery is defined as the development of learners who can use skills and knowledge creatively, productively and responsibly in order to solve problems and contribute to the culture. Restructuring for active learning requires an examination of the substance, form and quality of education in the individual school. Since each school and community is unique, questions about what should be taught and learned, criteria and methods of assessment, and the use of resources, space and time must be determined within the local context. A fundamental principle of MILP is the belief that every decision about teaching and learning which can be made by a school faculty should be made by that faculty. (McClure, 1989) Not only do those decisions best fit the specific context, they are also more effectively implemented because individuals are more deeply committed to their success. Decisionmaking must be informed by research and exemplary practice through interaction with the

knowledge base, not a mere passive acceptance of programs and ideas developed and mandated by others.

Participating MIL schools go through a four-stage process to become self-renewing centers of inquiry. (McClure, 1989) First, a School Profile is developed though interviews with teachers, students, parents, and administrators. The resulting description of the school serves as a benchmark for changes . Next, the faculty engages in a series of group and individual activities , the Faculty Inventory, to establish priorities for improvement. During the third stage, generally two to three years, teachers work in committees on their identified priorities. This process empowers the faculty to work together toward renewal, developing the skills and attitudes needed for "sustained inquiry into the assumptions and practices which define their school"(McClure, 1989, p.8). Teachers actively use the knowledge base to inform their decisions. In the fourth stage, faculties are able to work together on ongoing, comprehensive change, having developed a clearer sense of the nature and purpose of learning, teaching, and curriculum as well as an understanding of their own unique school culture and values.

Profile of a School

Wells Junior High serves approximately 350 students in grades 6-8 in a rapidly growing coastal community in southern Maine. At the beginning of the Mastery In Learning Project, the school was a solid, traditional junior high. Students were grouped according to grade and ability levels The administrative staff included a K-8 supervising principal and a building-based assistant principal. The curriculum was departmentalized. Parents, teachers and administrators selected the following descriptors as strengths of the school: orderly school climate; basic skills are taught, learned and used. Students felt discipline was firm, fair, and consistent.

The 37 members of the teaching staff averaged almost 10 years of teaching experience. In the interviews and surveys used to develop the school profile, teachers and administrators agreed that

there was little diversity in teaching style, with most teachers relying on demonstration and lecture as their primary instructional methods. Both teachers and administrators felt that faculty members were respectful of one another and had high levels of general knowledge. Teachers did not feel they were empowered, in the sense of acting on problems and opportunities. They felt that working together as a team was desirable, but this was not true of the school at that time. One teacher commented, "The message is, 'keep a low profile and don't make waves' ". They also did not see communication patterns in the school as open, positive and timely, although they recognized the importance of establishing such patterns. They cited the past prevalence of indirect communications, such as reprimands aimed at the whole group rather than at the individuals involved.

Teachers at Wells Junior High did not collaborate in order to improve their instructional practices, choosing instead to talk about non-instructional matters, often engaging in the jousting, or good-natured kidding, and griping described by Lieberman and Miller(1978). While teachers respected each other, they were also isolated; one teacher said, "Mainly, we went in our own classrooms and shut the doors. We each did our own thing". (Walters, in press). Teachers did not have a role in decisionmaking; "At faculty meetings, we sat and got talked at. I didn't see any other role...(we would) bitch and gripe about decisions that were handed down. We'd either follow them or try to get around them-just go through the motions" (Walters, in press).

Administrators and school board were supportive of the Mastery In Learning Project and teacher involvement in decisionmaking. The K-8 principal, who assumed his position in the fall of 1987, actually applied for it because of his interest in participatory decisionmaking. The assistant principal, who had been a teacher in the building, knew staff members well, and was seen as supportive. Their willingness to be involved in a teacher decisionmaking project, with the inherent risks and role changes, were crucial to the project's success, as was the support of central office administrators and the school board.

Determining Priorities and Getting Underway: The First Year

The first year of the Mastery In Learning Project was taken up with developing the school profile and beginning work on the priorities identified through the needs assessment, **grouping** students for instruction and **communications**. Committees were established to work on both communications and grouping, and a Steering Committee was formed. A Site Consultant was recruited and hired. The Site Consultant, a change agent role required for participants in MILP, was responsible for project documentation, providing research and resources for committees, assisting with professional development activities, and working with committees and staff to facilitate effective group decisionmaking and team building. Grouping committee members read and discussed the research provided by the MILP office in Washington. By the end of the year they had prepared a survey of grouping practices to be sent out to selected Maine schools in the fall. The Communications Committee sponsored a workshop in March, 1987, hiring an expensive, well-known presenter, after interviewing several individuals. The workshop was successful, but the communications skills presented had little chance of widespread implementation, since ongoing support was unavailable and teachers had few opportunities to practice them in meetings.

Year Two: Difficulties Begin

The hiring of a new Site Coordinator in October, 1987, provided a fresh, neutral viewpoint for the project. Her observations revealed that the project had little impact on the staff as a whole, despite the flurry of activity during the first year. She noted (Wentworth, 1988) the conviviality in the teachers' room. Discussions were generally confined to social interaction, with some discussion of student needs and problems. A few teachers did work together regularly, planning common projects, observing each other, offering both feedback and support. However, this was

not the norm. Although numerous structures existed for teachers to collaborate, including staff meetings, monthly team meetings, those meetings continued to be used for procedural announcements and some good-natured banter. Although teachers had two prep periods a day which could be used to work together, this time was generally used for individual preparations. She also noted the unusual prevalence of 'they' in general conversation, which allowed teachers to avoid responsibility and blame the mythical acts of someone else, generally administrators.

The fragmentation of the staff for implementing change became increasingly apparent that fall. Although a majority of the staff had agreed that changes in student grouping were a high priority, there was a 50/50 split on how it should be changed. (Wentworth, 1988) Half the staff wanted to move toward heterogeneous grouping; the other half wanted more than four groups that currently existed. A whole staff consensus was never reached on the nature of the grouping issue. No attempt was made to resolve these opposing views. The Grouping Committee contained members from both sides of the issue. The split over grouping represented a larger split on the staff between those who favored a shift to a middle school philosophy, and those who favored a continuation of the junior high structure of the school. The latter group was a majority. The smaller minority group, however, was heavily represented on the Steering Committee. The rift within the staff was delineated in a series of interviews with the entire staff done in October and November. This was a required part of the Project Consultant's job, for documentation purposes. Marylyn (Wentworth, 1988) learned that only those teachers involved on MILP committees had a clear idea of what the project meant. About 1/3 the staff had negative feelings about change, believing that too many past innovations had come and gone, with little real effect. A minority of the staff (25%) felt they could have input into any schoolwide decisions they chose . The remaining 75 % felt they had very limited or no input into decisions in the school outside their own classroom. These beliefs indicated that participation in decisionmaking was "more a matter of personal attitude than school philosophy" (Wentworth, 1988, p.) The staff

was a mix of highly empowered teachers, and teachers who saw themselves as having no power at all. Their response to the idea of teacher empowerment was summed up in one teacher's comment: "Sure, they want us to share the leadership and decisionmaking, but only in the areas they say are OK, and you can bet if we make decision they don't like, the deal will be off" (Wentworth, 1988, p. 73). Although no effort was made to match attitudes toward decisionmaking with participation on the MIL committees, it is likely that the core members came from the 25% who felt empowered. Certainly the committee chairs and more vocal leaders represented that group.

The excitement and enthusiasm generated by being selected for participation in a national project masked the split within the faculty during the first year of participation in MILP. Problems began to surface during the second year, as is typical of many change projects. That was when doubts and difficulties began to set in, as individuals reexamined their priorities and energy level. Some participants became fearful that the change project would fail. These feelings were present as a constant undercurrent in Steering Committee meetings during the fall of 1987. The work of the Grouping Committee that fall reflected the split between MILP leadership and the rest of the staff. The committee was charged with making a decision by November about grouping students for instruction the following year. They spent almost a year reading the research on grouping. As they did, it became increasingly apparent that there was little support in the literature for homogeneous grouping. There was no vehicle for communicating their growing awareness to the whole staff . The staff was unaware of the committee's discussions, but suspicious of the decision it was expected to reach. Committee members were aware of the fears of the rest of the faculty. As teachers, many of them were concerned about their own preparedness for working with mixed groups. In the end, the committee decided to recommend keeping the current system in place. Since equity issues were the main negative associated with homogeneous grouping, they decided to focus instead on ways to provide rich instructional opportunities for students in all groups. This decision was deeply disturbing to administrators and

MILP leaders who supported heterogeneous grouping. It appeared that teachers had been given the opportunity to make a reasoned decision together based on research, only to make a decision which flew in the face of that research. However, it reflected a deep understanding of the feelings of a majority of the staff. Probably some teachers expected the decision to be overruled by the administration, since most believed they favored a shift to heterogeneous grouping. When the decision was not changed, the credibility of the process was enhanced.

Involving the Whole Staff: A Turning Point

A two-day workshop in March, 1988 was the turning point that brought the staff together and formed the foundation for its development into a learning community. Plans for the workshop were developed by the Steering Committee, with Marylyn's assistance. Committee members were aware that successful use of this time was crucial to the future of MILP ; unless everyone was made to feel a part of the work, it would become another one of those innovations which had come and gone without any real impact on the life of the school. Because of a shortage of money, we decided to use no outside facilitators. Instead we would rely on the skills and talents within the staff. Marylyn agreed to serve as facilitator.

Descriptions of the agenda , including the goals of the workshop, were distributed to the staff well in advance. One goal was to clarify all non- classroom projects staff members were working on and streamlining them in order to reduce the sense of fragmentation. Another was to develop a list of projects for the whole staff to work on in the future. This included planning a process for accomplishing staff priorities, and developing a timeline for when the work would be done. The "whole workshop was designed to model cooperative learning, communication and process skills, and teambuilding". All activities were planned in a cooperative learning format, in order to give teachers an opportunity to learn and practice group skills while working on real problems. Since many teachers had become interested in cooperative

learning from the literature on grouping, it was also an opportunity to gain some insight into a technique with immediate application to the classroom. Teachers were assigned randomly in groups of four.

By any measure, the workshop was an enormous success. Written evaluations, informal teacher's room talk and complements to Marylyn during the next few weeks all attested to the positive response of staff members. More importantly, the procedures for working together as a staff which were established during those two days set new norms for the school culture. Modifications were made over the next three years, as the decisionmaking process matured, new staff members were assimilated, and new needs arose. Nevertheless, the foundation built in March 1988 formed the basis for developing a learning community , a culture of inquiry which supports the thinking reflected in the quote at the beginning of this paper. The following immediate changes resulted from the workshop.

1. Staff Meetings became work sessions: The most significant decision of the workshop involved a restructuring of staff meetings into problemsolving/decisionmaking sessions. During her early months at WJHS, Marylyn found the lack of a time for the whole group to discuss issues a major impediment to the work of MILP. Staff meetings were essentially wasted. When she suggested to the Steering Committee that chairs be arranged in a circle and at least one question be presented for discussion at staff meetings, one person commented, "They aren't ready for anything as radical as that"(Wentworth, 1988, p.106). Aware that " without some kind of total school forum for collegial sharing, " (Wentworth, 1988, p. 106), MILP could not be extended to the whole school in any significant way, she continued to raise this with other groups in informal discussions. However, no one could see how to break this pattern, and few even saw a reason to do so. When she suggested a change in staff meetings during a discussion on the first day of the workshop, she felt immediate, intense resistance, and dropped the idea. Later in the workshop, a teacher again brought up the idea of changing staff meetings, stating that we had "sidestepped faculty meetings and working together for too long, and he wasn't willing to do that any longer" (Wentworth, 1988, p. 117). An intense

discussion followed with a high level of participation. At the end of the discussion, the staff agreed by consensus to schedule 6 faculty meetings before the end of the school year, all run as workshops on issues, facilitated by staff members, and lasting an hour. In fact, over the course of that spring, the staff ended up meeting weekly for almost two months to accomplish the work they had set for themselves. Meetings became gradually longer, as the faculty perceived the need for more time to work together. Every change in length was agreed to by consensus. Although later some meetings were used primarily for sharing information, collaborative problemsolving and decisionmaking remained the main purpose.

2. Meetings were run by volunteer faculty teams. A request for volunteers at the end of the workshop resulted in eleven people willing to serve as facilitators, seven recorders, and fifteen willing to be responsible for process maintenance. A facilitation team including an individual from each role group volunteered for the first faculty meeting. This tradition continued. At the end of each meeting, a volunteer team was assembled for the next meeting. This team worked with the Steering Committee to plan the meeting format and then ran the meeting. The title 'Reflector' was given to the person responsible for maintenance. For a time, that task included offering some written notes on the process after the meeting. These records, along with meeting minutes, formed the collective memory of the staff.

3. Decisions were made by consensus. The first example of whole-staff consensus was the change in staff meetings. Later during the same workshop, resistance to consensus was expressed and some teachers requested a return to voting and majority rule. This continued to be both a source of strength and a difficulty to maintain. The major difficulty was the amount of time required. Consensus was particularly frustrating to product-oriented staff members. When new staff members first attended staff meetings, they often had difficulty understanding its value, wishing that 'we could just make a decision and get on with it'. However, commitment to consensus was often expressed by staff members because they came to

understand its value in making better decisions, while respecting the opinions and needs of everyone. When a decision was made by consensus, it meant that every staff member could support it, even though they might not actively embrace it. Everyone agreed not to sabotage a decision made by consensus.

4. The open expression of conflicting viewpoints was encouraged. Effective consensus decisionmaking required that conflicts and differences be expressed openly and honestly before a decision was reached. Marylyn commented a few months before the March workshop that she had the "feeling the MIL was avoiding most of the realities of their project, skirting issues, avoiding confrontation and generally treading water"(Wentworth, 1988, p. 109). One teacher's insistence on confronting the issue of working together at the workshop led to the decision to use staff meetings productively. During that discussion, which was controversial and even heated at times, individuals listened carefully to each other and were able to acknowledge each other's points. In a reflection written by one of the administrators after the March workshop, he noted that for the first time, "even when people said things that weren't shared by the rest of the group, they weren't put down for it". While this norm was difficult to maintain, since it required taking the risks inherent in honest, direct personal communications, it was the consideration of differences that ultimately gave consensus decisions their strength.

5. Teachers and administrators worked together to make decisions. At the workshop, both building administrators participated with teachers in all activities, including working in cooperative groups. On the second day, both the superintendent and assistant superintendent attended the afternoon session, joining groups which were established to work on specific staff priorities. The assistant superintendent worked with a group that developed a plan for a grouping pilot for the following year. The superintendent joined a group that was looking into arranging release time during the following year . He was able to provide answers to questions

about the feasibility of their ideas. He functioned as a group member in a discussion facilitated by a teacher. Prior to this workshop, teachers didn't believe they could make significant decisions about school operations or instruction, yet during the two days they made several major decisions working with administrators. Marylyn noted that "by the end of the year, all major decisions aside from those properly in the realm of the central office and the school board were being made at faculty meetings, with faculty and administrators working together"(Wentworth,1988, p. 87). During that spring, the use of the pronoun 'they' virtually vanished, replaced by 'we'.

6. Written reflection became a part of the decisionmaking process. The Project Consultant, Marylyn, modeled reflection by offering written comments as part of meeting notes, and by asking questions about practice. Reflection logs were used in the March workshop, but they were not particularly successful, probably because it takes time to see the value of reflection in group work. After the workshop, written reflections became a formal part of the meeting process. As Marylyn continued to model, and teachers began to find their own voices, reflections were offered on the nature of the change process, how effectively the staff worked together at staff meetings, the purpose of conflict, and the relationship of group decisionmaking to classroom decisions and instruction. Ethical and philosophic issues were also raised. Written reflection has been used successfully as an evaluation process for staff development workshops.

7. The needs of children became the basis for decisionmaking. Marylyn frequently pointed out the relationship between the work the staff was doing, and the classroom. For example, when teachers were working in cooperative groups at the March workshop, the noise level in the room was very high, yet no one found it to be a problem. Making this explicit both orally and in writing provided food for thought for teachers struggling with the issue of control in a student-centered classroom.

8. Teachers learned to share personal feelings . One staff member lost her father during the workshop, which precipitated feelings of sorrow, loss, and sympathy among others who had recently been touched by similar losses. Staff members were able to share these intense feelings, strengthening the deep human bond which existed among a staff which genuinely cared about each other. One individual's reflection on the events of those two days included an understanding of the importance of "the group's journey through life.. the tremendous amount of gains and losses this group has gone through together...births, marriages , divorces, sadness, happiness, optimism, pessimism, and death. Most of the staff has been together for more than half their teaching career. The people we work with are important. The balance between our professional life and our personal life can be precarious..we all need to support each other as people". This support during a time of great emotion contributed a key element of trust that each staff member would be cared for by the group. Individuals found they could share their concerns and fears regarding change. The staff was able to make changes in a way which respected the readiness of colleagues. This made it possible to see change as an ongoing, incremental process rather than a one-time solution.

SKILLS AND ATTITUDES FOR A LEARNING COMMUNITY

In the third phase of the Mastery In Learning process, the faculty works together to develop the skills and attitudes needed for "sustained inquiry into the assumptions and practices which define their school" (McClure, 1989, p.8). What are those skills and attitudes? Our experiences in becoming a learning community provide some insights.

Teachers must be able to utilize the knowledge base to inform decisions. As professional decisionmaker, the teacher must integrate varied bodies of information to "design applications that meet unique and changing circumstances" (Castle and Livingston, 1989, p.24) The knowledge base also includes practical wisdom.

School cultures with norms and structures which discouraged collaboration have traditionally provided little opportunity for teachers to share what they learned from their own experiences. Teachers had neither a peer group with which they could share their understandings, nor a common language to express what they were learning. They lacked an audience and a system of notation for recording their practical wisdom. (Shulman, 1987) At Wells Junior High, the MIL committees began to develop an audience and a common language for talking about their work. When the whole faculty began to work together, the audience and common language became inclusive

Teachers must be able to work together to solve problems. According to Resnick, (in Shulman, 1989) successful critical thinking programs for students involve socially shared intellectual work and are organized around mutual accomplishment of task, so that elements of skills being learned take on meaning in a context. Based on particular bodies of knowledge and interpretation, they permit skills to be built up, bit by bit, yet allow participatory roles even for the relatively unskilled. In addition, usually hidden processes are made overt and thus subject to explicit observation and commentary by participants. Collaborative decisionmaking provided us with a laboratory for teachers to improve individual skills in designing solutions to problems in practice.

Teachers must develop a habit of reflection. Reflection makes hidden processes overt and subject to observation, commentary, and understanding. (Resnick, in Shulman, 1989) Complex, higher order learning requires looking back on experiences. Collaboration among teachers does not always benefit children; in fact,it may sometimes reinforce norms that are harmful to them . At Wells Junior High, we began by reflecting on our own decisionmaking process and the nature of change. The habit of critical inquiry begun by these reflections became part of the school culture. It led us to question our underlying assumptions and helped us keep our focus on the needs of children.

Teachers must be able to express and debate conflicting views of teaching and learning. Open expression of differing viewpoints gives collaborative decisionmaking the power to overcome the intrinsic limits of the individual human intellect. According to Dewey, (Shulman, 1989), the creation of dialogue is required for the pursuit of knowledge. Individuals are incapable of knowing the whole truth. Human reasoning is limited without exposure to competing viewpoints. Learning results from a "process of continuous debate, dialogue, deliberation, and reasoning. Reason is a process of constantly comparing incomplete, insufficient views" (Shulman, 1989, p.176). Such open discussion was not a norm at Wells Junior High at the beginning of the MILP process. The staff made the transition from isolated work to a collaborative decisionmaking process through cooperative learning techniques .

Teachers must confront their underlying beliefs and values. Since "inquiry is not value-free" (Sirotnik, 1989, p. 97), a learning community must examine its own beliefs. In the process of generating knowledge through group discussion and problemsolving, our beliefs and interests, both individual and group, became explicit. The teasing out of tacit values and interests sometimes led us to reframe the problem. In examining the issue of grouping students for instruction, we began to see that the real issue was equity, providing rich educational opportunities for all students. Confrontation with the equity issue embedded in grouping led some of us to question our assumptions about students and instruction . (Walters, in press).

The School Renewal Network: Connection to the Invisible College

Shulman (1989) provides a useful construct for understanding the relationship of the School Renewal Network and Wells Junior High. A collegium is a setting in which individuals with a shared mission come together to discuss, solve problems, and learn. The

visible college provides "a forum for direct, face-to-face interactions and deliberations among colleagues in the same building" (Shulman, 1989, p. 181). Faculties also need connections to the larger community of educators, the invisible college. This includes reading research, theory and descriptions of programs of others and attending conferences, as well as sharing practical wisdom through writing and correspondence. The School Renewal Network, linking researchers and teachers engaged in restructuring in over 50 schools and universities around the country, connected Wells Junior High to the invisible college beginning in January, 1989. For the first year and a half, teacher use was limited. During the fall of 1990, use increased greatly. This section of the paper gives a brief history of participation in the School Renewal Network at Wells Junior High and summarizes the results of a staff survey about attitudes towards the computer network done this winter. It then explores the reasons for the increase in use through one teacher's story.

Prior to its installation at the school, a teacher volunteer who agreed to become network coordinator was trained in its use. When John returned from the training, he made numerous efforts to share his enthusiasm for the potential of the network with the staff, including a presentation at a staff meeting. He offered training to interested staff members, during prep periods or after school. A few teachers did get trained, but only Marylyn, the Site Coordinator, contributed regularly . John also surveyed teachers to get a list of questions teachers wanted to submit to the network. In spite of these efforts, use was very low.

In September, 1989, the computer was moved to a more central location . Originally the computer was placed in the Teacher Center, which functioned as a professional resource center. While this provided a quiet workplace, it was not a location with a great deal of traffic. The Steering Committee, working with the network coordinator, decided to move the computer to the main office, adjacent to the photocopier. It was hoped that teachers would begin to 'browse' network offerings while waiting to use the copier. John again offered training to interested teachers. Only few teachers

requested and completed the training. Although funds were available for substitutes to free teachers for training sessions, staff members were reluctant to leave their classrooms for activities not perceived as absolutely essential. The available time after school or during prep periods was already taken up with the many meetings required for teaming and participatory decisionmaking. In spite of the computer's new location and efforts to make training convenient, use did not increase that year.

In September,1990, a new coordinator took over, when John, the first coordinator, left to take a job in another district. The Steering Committee decided to hire a coordinator for ten hours a week. Grant funds from the Smart Family Foundation, earmarked to support restructuring efforts at Wells Junior High, covered the costs. Joy, a parent with considerable volunteer experience in the district, agreed to take on the position. Joy also served as a long-term sub for a teacher on maternity leave the previous spring. She was familiar with both the staff decisionmaking process and individual teacher interests, having attended team and staff meetings during that period. Joy began her work by familiarizing herself with the structure of the network. She printed out everything contained in the various conferences and began reading the papers. She also developed an incentive system to increase use. Teachers who contributed papers or messages to the network were eligible for a monthly drawing of a small cash prize.

During the first four months of this year, use of the network increased greatly. Almost 50 messages were sent, compared with only 10 from January to June, 1990, a 400 % increase. Papers sent increased from 16 between January and June, 1990, to 42 from September, 1990 through December, 1991. In early January, 1991, Joy sent out a survey to the staff about network use. About 2/3 of the staff returned it, for a total of 22 responses. According to her summary of survey results, "the one message which came through loud and clear is that most of you are interested in the network, but *there is not enough time* !' About 68 % of the staff was happy having Joy do the actual work on the computer. Only one respondent agreed with the statement, "I don't find the information from the

network interesting". Teachers were asked how they felt about the future of the School Renewal Network. Of the 22 respondents, 15 agreed with this statement: "*It is a valuable source of information, sharing and support for teachers. It is important to make contributions to it so that we can keep it alive and well in the school*". A minority of 7 agreed with this statement: "*Although it is a valuable source of information, sharing and support for teachers, it is one more thing to do in our already full day. I don't have time to make contributions. I hope other people do, but if we lose it, so be it.*" . Only one teacher didn't care whether the network stays or goes. A majority wanted to contribute , but needed some assistance. Only one teacher wanted nothing to do with contributing . Six teachers were willing to write, but felt they didn't have anything new or different to contribute. One teacher added the following written suggestion for Joy: "Talk to us about things we are doing, and then you do the write-up; it's the act of writing that keeps me from contributing".

One teacher's story illustrates the growing interest in the School Renewal Network. Although Saul dabbled prior to this year, his participation began last fall when he needed to plan a course for the teacher intern program. He asked this question on the network: " If you had 15 hours to work with new teachers, what should they know about computers and media to support them as beginning teachers in a school?" He discovered that little had been done to develop competencies in computers/media for beginning teachers around the country, which confirmed what he learned from computer teachers within the state. Many of his responses included requests for the syllabus he planned to develop. He enjoyed "the personal contact, my name showing up on a message to me". The messages were important because they came "directly to me and because it gave me a way that what I was doing could become important to others".

For Saul, not only the content of the information was important. At one point, Joy gave him a copy of a conversation about computers between a two teacher and a researcher. He began to 'eavesdrop' and was struck by the "level of personal emotion

between two friends discussing an issue of importance to them. The passion of the discussion was very engaging...It was stream-of-consciousness, thinking out loud, in a very personal way. It made me feel I could feel comfortable contributing. I didn't have to have things thought out. I could share ideas. It was like two brains having an opportunity to bounce ideas between them, or like a conversation between two colleagues in the teachers' room".

The syllabus Saul designed included what other teachers around the country thought should be included. These responses , practitioners talking about what they felt was important, represented the closest thing he had to a research source. Knowing that the syllabus reflected the feelings of other practitioners gave him some confidence that he was on target. As a result of this experience, he planned to use the network as an additional resource in the future. Saul also shared his completed syllabus with researchers and other practitioners on the network.

Not surprisingly, time was a major factor affecting network use. The time concern was reflected in the wording of several of the survey items. In addition, several written comments indicated that it was the major factor preventing participation for some teachers. One said, " would like to learn, but my time is always taken up with kid issues" . Another commented, "At the moment I don't have time, but maybe in the future". Although efforts have been made to address this, such as providing substitutes for teachers to be trained in using the network, time will continue to be a problem. Teachers were reluctant to leave their classrooms in someone else's hands. The meetings involved in team planning and staff decisionmaking took up after-school and prep time. The extra preparation involved in changing instructional practices in a restructuring school also required additional time. A P coordinator who can do the actual hands-on work on the network, thus relieving some of the time pressure, has been very helpful. Another factor affecting network participation was the perceived value of the information received. During the first six months, usage was limited. A critical mass of contributors was needed. Some early questions which were sent received few responses. As the number of

contributors increased, teachers were more likely to receive useful responses to requests for information. Teachers were also more likely to use the network if the information was personally important to them. Saul's experience convinced him that "To become an active user, the network must be seen as personal and relevant". Because Joy knew teachers well enough to be aware of their particular interests, she was able to match items coming over network to individuals. Marylyn used a similar method for distributing research articles to teachers. When she began her work at Wells Junior high, she placed articles on topics of general interest in mailboxes, but she soon learned to be more selective in distributing research. From her interviews, she learned that "Few teachers found current literature relevant at all, unless by chance it pertained directly to something they were doing. The only literature they perceived as being worthwhile was what came out of classes they took, or things they looked for themselves that responded to a specific need". (Wentworth, 1988, p. 145) As a result, she changed her strategy , finding articles and distributing them in response to comments made by teachers. The time Joy spent distributing articles in the same manner has increased interest in using the network.

For some teachers, the idea of putting their own words on the network was intimidating. On the survey, some teachers indicated that they did not feel they had anything new or original to contribute to the network. Joy felt that the term 'papers', used to describe contributions to the network intended for a general audience, was intimidating to some. As Saul's words indicated, once he saw how informal the writing on the network often was, he felt more comfortable with contributing. The speculative nature of some of the conversations gave permission to put out tentative ideas for responses. Since many teachers felt they don't have anything important to say, Joy reported that she suggested to individuals that it would be a good idea to put things they were doing on the network.

The role of the network coordinator has clearly been very important in increasing use of the network. Saul recognized Joy's

personal contributions to the increase in use at Wells Junior high, describing her as "conscientious, task-committed, creative, and relentless". Although some teachers recognized the value of working on the computer themselves, most of them indicated that they are happy writing notes to Joy and having her put them on the network. Saul said, "There is an element of compromise. Part of me wants to be sitting and entering the information. Having Joy do it is second best, but I just don't have the time...It's not as fulfilling as long as its secondhand. I'd like my own direct link (at my desk) so I could talk to teachers in the building, at the high school, and on the network". The coordinator's role in reading and sorting messages became more important as the volume of information on the network increased. The coordinator's role can be expected to evolve. Saul suggested that in the future, Joy focus on a specific area of interest for the school, such as scheduling. Joy would then be "the direct link between the network and the school, who understands the issues from a school viewpoint, becoming our action researcher. She would help frame the questions we need to ask to get maximum information from the network.

Teacher involvement in the School Renewal Network has been affected by the development of Wells Junior High into a learning community. When we were first connected to the network, the staff was already deeply involved in learning to solve problems together. The decisionmaking process used in staff and team meetings provided teachers with an audience for talking about teaching and learning. A common language was being developed as we struggled to reach consensus about meeting the needs of our students. Learning to reflect helped us confront the assumptions, values and beliefs underlying our practices. It is not surprising that during the first few years of the change teachers felt little need to be connected with the larger educational community. There was too much work to be done within our own community, the visible college.

Turning outward to the invisible college may be a part of the maturation of the school community as a self-renewing center of inquiry. As teachers became more confident, it was natural to begin to seek a wider network than the school. The teacher as learner

forms the link between improvement of instruction in the classroom and the development of the organization. (Fullan, 1990) The School Improvement Network can facilitate the development of the teacher as learner as well as connect the individual school to the larger educational community.

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